

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

REC'D 28 MAY 2004

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Applicant's or agent's file reference 88 777 a/ubr	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP 02/07184	International filing date (day/month/year) 28.06.2002	Priority date (day/month/year) 28.06.2002
International Patent Classification (IPC) or both national classification and IPC H04Q7/24		
Applicant TELEFONAKTIEBOLAGET L M ERICSSON (PUBL) et al.		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p>
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the opinion II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 19.01.2004	Date of completion of this report 27.05.2004
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I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-16 as originally filed

Claims, Numbers

1-19 as originally filed

Drawings, Sheets

1/4-4/4 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application; the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:
- the drawings, sheets:

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5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-19
	No: Claims	
Inventive step (IS)	Yes: Claims	1-19
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-19
	No: Claims	

2. Citations and explanations

see separate sheet

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Concerning Point V

- 1) The following documents are cited:
D1: WO 00 30369 A (TELEFONAKTIEBOLAGET LM ERICSSON) 25 May 2000 (2000-05-25)
D2: WO 98 52324 A (TELEFONAKTIEBOLAGET LM ERICSSON) 19 November 1998 (1998-11-19)
D3: WO 95 32591 A (AIRNET COMMUNICATIONS CORP.) 30 November 1995 (1995-11-30)
D4: US-A-5 699 356 (BEEVER ET AL.) 16 December 1997 (1997-12-16)
- 2) Independent claim 1 relates to a method for channel reallocation. The method is for use in a system comprising a gateway node arranged to establish communications between a first communication network and a second circuit switched communication network. The channels are circuit switched channels between said second network and the gateway node. These channels are controlled by at least two control entities each of which is allocated a respective group of channels.

There is thus a one to one relation between the circuit switched channels and the control entities. The problem to be solved is effectively that this relationship may not be optimal eg the channels allocated to one control entity may be in a state of congestion and those allocated to another be largely idle. This state may vary over time.

- 3) This problem is overcome by the method steps of claim 1 in that communication performance information is monitored and it is determined if a reallocation triggering condition is met. If so, then a reallocation procedure is performed.

The only one of the above cited documents which discloses a system as outlined in paragraph 2 above is D1, which is thus the closest prior art. This document (see figure 1) teaches connecting the internet to a subscriber via the PSTN and an ISP which includes a media gateway (gateway node in the claim language). D1 is interested in security, and in particular to prevent one provider interfering with circuit (switched channels) allocated to another provider (see for example page 1 lines 5 - 10). To this extent a record of channel allocations is maintained. Although

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the claim mentions "for the purpose of allocating ... circuit switched communication channels", how this is done is nowhere described in the document, let alone how channels should be reallocated.

Since D1 thus discloses neither an allocation nor a reallocation method, there is nothing in the document (either alone or in combination) that would lead the skilled man to the claimed subject matter. Claim 1 is thus novel, inventive and industrially applicable within the meaning of Articles 33(1) - (4) PCT.

For the sake of completeness, the following comments are made on D2 - D4:

D2: relates to resource allocation in a network, rather than channel allocation between a network and a gateway linking two networks. This is done by prioritizing the nodes in the network, which are arranged in a bus. Apart from the concept of resource reallocation this document thus has nothing in common with the current application.

D3: Relates to channel allocation among base stations in a wireless system, which is again different from channel allocation between a network and a gateway.

D4: This document relates to channel allocation on a wired ring of base transceiver stations, which is again different from channel allocation between a network and a gateway.

These documents are thus of less value than D1 and not suitable for combining with D1.

4) Similar comments to the above apply also to independent claim 13 which relates for the apparatus category to method claim 1.

Claim 12 relates to a computer program arranged to execute the method of one of claims 1 - 11.

These claims thus also meets the requirements of Articles 33(1) - (4) PCT with regard to novelty, inventive step and industrially applicability.

5) Owing to their dependencies on the above independent claims, dependent claims 2 - 11 and 14 - 19 also meet the requirements of Articles 33(1) - (4) PCT with regard to novelty, inventive step and industrially applicability.

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6) For the sake of completeness, the following is noted:

i) The formulation "In a communication system ..., a method for ..." renders claim 1 unclear, contrary to the requirements of Article 6 PCT. The reason for this is that the emphasis is on the system, rather than the method. This makes it unclear if protection is sought merely for the sub unit or for the unit as a whole.

The claim should thus be redrafted accordingly, eg "Channel reallocation method for a communication system comprising ..., the method comprising ..." or similar.

Similar comments apply to claim 13.

ii) The claims are also supported by the description, contrary to the requirements of Article 6 PCT, because of the emphasis on "automatically". The reason for this is that (cf figure 3) the application clearly teaches the possibility of manual channel reallocation (see also claim 8).

iii) The independent claims 1 and 13 should have been put in the two part form recommended by Rule 6.3(b) PCT with a pre-characterising part reflecting the teachings of the closest prior art ie D1.

iv) In order to meet the requirements of Rule 5.1(a)(ii) PCT, at least the document D1 should have been cited in the description and briefly discussed.